# NEW YORK STATE MECHANIC.

**Under the Direction of the New York State Mechanic Association.**

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THE ALPACA, OR PERUVIAN SHEEP.

## TRADES AND MANUFACTURES.

### WOOL OF THE ALPACA AND ITS FABRICS.

The fleece of this animal has already become an important article of commerce and manufacture. The wool of the alpaca has ever been in great request among the natives of Peru and Chili, and an effort is making to introduce the animal extensively into the elevated districts of England and Scotland, on account of the superior quality of its wool, which is calculated to supply the manufacturer with another raw material of home growth, applicable by its fine quality and glossiness to the purposes of silk; and thus not interfering with the growers of wools, or worsted spinners and woolen manufacturers. Considerable quantities of alpaca wool, says the *Cultivator*, are imported into England, where it is much of it spun, taken to France, and made into the finest cashmere shawls. It is also extensively mixed with the finer worsted goods, and in many cases passes for silk. The best camlets and moreens have more or less of it in their texture.

The alpaca is a species of the llama of Peru, and supplies the place of the camel to the inhabitants of South America. They inhabit the cordilleras of the Andes, where they congregate in large herds, sometimes consisting of a hundred individuals, and feed on a grass peculiar to those mountains. As long as they can procure green herbage they are never known to drink. At the period of the arrival of the Europeans in Peru, they were used as beasts of burden, and killed in vast numbers for their flesh and skins. At one time about 4,000,000 were annually killed for food, and 300,000 used in the service of the mines of Potosi. From the form of their feet they are peculiarly fitted for mountainous countries, being, it is said, even safer than mules. They are also maintained at a trifling expense, wanting neither bit nor saddle, nor oats to feed them; it is only necessary to unload them in the evening at the place where they are to rest for the night, they go abroad into the country to seek their own food, and return in the morning to have their baggage replaced, and continue their journey. They carry about 150 pounds at the rate of 12 or 15 miles a day, over those mountainous passes. They are about four and a half feet high, and not more than six in length, with a bunch on the breast, which constantly exudes a yellowish oily matter. The hair is long and soft, and of various shades of color, white, brown, &c. The tail is rather short, and curved downwards. The hoofs are divided; or, rather, the toes are elongated forward, and terminated by small horny appendages. In Peru they are mostly shorn every third year, about April, when the wool is about 8 inches long; it usually grows three inches in a year, but, if shorn yearly, grows six or eight inches, and the fleece weighs from six to eight pounds. Instances are known in which the wool of the alpaca has attained the extraordinary length of 30 inches. There are several specimens of the llama in the different menageries in Europe, where they appear to thrive well; and in the traveling menageries of this country they are frequently to be seen, unharmed by the fatigues of flying marches, change of climate, and inclemency of weather.

"We wish to ask," says the *Cultivator*, "why the alpaca, if it possesses the qualities ascribed to it, both as productive of food and clothing, might not be successfully introduced into the United States? It is perfectly hardy, its food is the coarsest grass, and it thrives where a common sheep would starve; its flesh is excellent, and its fine fleece is useful for many purposes to which our Saxon or merino wools, from their shortness and the difficulty of making them perfectly white, are inapplicable. There are large tracts of country, both in New-England and New-York, not indeed too elevated for sheep, but which there is little doubt would be found perfectly adapted to the alpaca. There are at present about a hundred of them in Great Britain, and it is expected that quite a number of them will be introduced the present year. The alpaca wool is whiter, brighter, not being colored with the animal secretions, as common wool; is straighter, stronger, and softer; small in fibre, pliable and elastic, more resembling silk than wool, and producing a fabric of a texture between silk and common sheep's wool."

We wish to call attention to the subject. It is believed that some of our ingenious and enterprising manufacturers might here find a successful investment of capital, where there is now no competition. The animal may be plentifully procured, and the hardiness of its nature enables it to endure transportation and change of climate without loss.

## ARTS AND SCIENCES.

### MECHANICS.

Having traced the science in its progress to completion, under the hands of a long line of philosophers, we shall proceed to give some of its phenomena.

All the changes which come under our observation, says a writer in the *Encyclopedia Americana*, are the consequence of motions produced by the action of a few great elementary forces; and all motions are found to take place in conformity to a few universal principles. The principles of the laws of motion are, in the language of Newton,

I. "Every body perseveres in its state of rest, or of uniform motion in a right line, unless it is compelled to change that state by forces impressed thereon." This is called the law of *inertia*, and expresses the entire indifference of matter to motion or rest. It is the conclusion of universal observation, that a body will never begin to move of itself. Wherever we observe motion we conclude that there is a power in action to produce it. The other part of the law, that motion is, in its nature, as permanent as rest, and that it is in a right line, is far from being self evident, or even an obvious truth. Limited observation would lead to the conclusion that all matter has a tendency to rest, and such has long been, and still is, a common error. But it is found by experiment that in proportion as friction and the resistance of the air are removed, there is a tendency in motions to become more and more permanent. A marble rolled on the grass soon stops; on a carpet, it moves longer; on a floor, still longer; and on smooth, level ice, where the wind is not unfavorable, it continues very long in motion. In a vacuum, where the resistance of air is not felt, two windmills, whose pivots have equal friction, and which are set in motion by equal forces, continue to move equally long, whatever may be the position of their vanes. In the air, the one whose vanes cut the air will continue to move much longer than the one whose vanes are opposed to it. A pendulum in a vacuum, having only the stiffness of the riband by which it is suspended to overcome, will vibrate for a whole day. A spinning top, in the same situation, retarded only by the friction of its point, continues spinning for hours. In all these cases the continuance of the motion is proportioned to the diminution of friction and resistance. We can [illegible] the conclusion, that a body once put in motion [illegible], if left to itself, continue to move with undiminished velocity. The heavenly bodies, moving in free space, subject to no opposing influence, keep on their path with a velocity which has remained unabated since first they were launched from the hand of the Creator. They move, not, indeed, in straight lines, but in curves, as they are drawn towards each other, and towards the centre, by the universal force of gravity. This force does not diminish their velocity, but deflects them continually from the right line in which they tend to move. If this central force were suspended, they would all shoot forward into space, and the harmony of their motions would cease. Some force similar to

They carry

this central tendency is always in action, whenever we see bodies move in curve lines. The stone, to which a boy gives accumulated force by whirling it round in a sling, is for a time kept in its circle by the central force represented by the string; when let loose, it darts forward in the air, turning not to the right nor left, until the atmospherical resistance destroys its motion, or the force of gravity bends it to the ground. A full tumbler of water, placed in a sling and made to vibrate with gradually increasing oscillations, may, at last, be made to revolve in a circle about the hand, each drop tending to move out in a straight line from the centre, and therefore remaining safe in the tumbler, whose bottom is always farthest from the centre. When a vessel, partly filled with water, is suspended by a cord, and made to turn rapidly round, the water in its tendency to move out in a straight line, recedes from the centre, and is gradually heaped up against the sides of the vessel, sometimes even leaving a portion of the bottom dry. Water moving rapidly in the stream of a river, or the tide of the sea forced rapidly through a narrow passage between opposite rocks, not unfrequently forms a whirlpool on the same principle. The force with which a body constrained to move in a circle, tends to move off in a straight line, is called the *centrifugal force*. Advantage is taken of it in many processes of the arts, and in all circular motions of machinery. The clay of the potter is placed on the centre of a swiftly revolving table, and while his hand shapes it, the centrifugal force causes it to assume the desired dimensions. A globe or sheet of molten glass is in a similar manner made to expand itself. The legs of a pair of tongs, suspended by a cord and made to revolve, will diverge in proportion to the velocity of the revolution. The steam governor of Watt is constructed and acts on this principle.

Another consequence or particular of the law of inertia is, that motion is communicated gradually. A force which communicates a certain quantity of motion in one second, will impart double the quantity in two seconds. A ship does not yield at once to the impulse of the wind when the sails are set; its motion increases as new portions are successively imparted. A horse does not start at once with a carriage into his utmost speed; his force is at first spent in giving motion to the inert mass. Afterwards, with far less exertion, he keeps up the motion, being required to supply that portion only which is destroyed by the obstacles of the road. The motion communicated to a body, if not destroyed by some force, is accumulated. Thus, a nail is driven in by all the force of the hand, accumulated through the whole time of the descent of the hammer. The knowledge of this fact gives the means of increasing the effective force of a moving power in a very great degree. A force of 50 pounds communicated every second to a loaded wheel, will, if not diminished by friction or other causes of waste, enable it to overcome a resistance of 500 pounds once in every ten seconds. Such is the *fly wheel*.

II. "The alteration of motion is ever proportioned to the native force impressed, and is made in the direction of the right line in which that power is impressed." That is, a double force generates a double motion; motion cannot increase or diminish itself, nor turn to the right nor left without cause. In consequence of this, two or more forces, acting at once on a body in different directions, cause it to take a direction different from that of either force, and if one of them is a variable or constantly acting force, to move in a curve line. This is called the *composition of forces*. A boat rowed at the rate of three miles an hour directly from the bank of a river which runs at the rate of two miles an hour, is acted on at once by the force of the rowers and that of the current, and will be found at the end of an hour, three miles from the bank, and two miles below the point from which it started, having moved in a diagonal line between the directions of the two forces.

The *resolution of forces* is the reverse of this. A single force is considered as resolved into two or more others. A ship sailing on a side wind, is sent forward by a part only of its force. The other part has no effect, or that only of driving her out of her force.

## STATE PRISON LABOR.

### LEGISLATIVE ACTION ON THE STATE PRISON LABOR QUESTION.

[The following is intended to lead the way for a more systematic review of the measures adopted by the mechanics, and their results. A series of papers will follow, inquiring into their effect, the influence of the existing laws, and the means to be adopted to remedy the evils of the same.]

The convicts in our state prisons have been employed at mechanical trades to a considerable extent for many years; for the ten years last past, mechanics have complained of the injuries sustained in consequence of having convicts thus employed; but it was not till the year 1833 that they made a united and systematic effort to procure an alteration of the system.

The first movement in the legislature of the state seems to have been in the assembly, in the session of 1832. Petitions were presented from Albany, Rochester, and Tioga, and were referred to the committee on state prisons, but on the 17th of April it was ordered, "that the committee be discharged from further consideration of the petitions, and that the petitioners have permission to withdraw them."

On the 27th of March, in the same session, J. R. Van Duzen, R. D. Dodge and Wm. Seymour, were appointed a special committee "to examine into the state of the prisons at Auburn and Sing Sing," and their report, made Feb. 26, 1833, forms assembly document 199.

From impressions grounded on this report, it seems the vigorous prosecution of mechanical labor in the several prisons was determined on. A reference to this document proves, what has often been asserted by the mechanics and denied by their opponents, that the main object of the present system is, to realize large profits from the labor of convicts, and thus virtually build up a large government monopoly, at the expense of the interests of the mechanics, or else establish individual monopolies, at the same cost, by letting contracts to favorites, and enabling them successfully and ruinously to compete with mechanical labor.

The committee, after giving an account of the labor performed by the convicts, and the flourishing financial condition of the Auburn prison, where the system was first adopted, remark: "The history of the world has not until now presented so imposing a moral spectacle." After reproving the inspectors of Mount Pleasant for not having before employed the convicts in fulfilling contracts in any branch of mechanical trade, they proceed and say "that the contractors ought not to be limited in their contracts to working marble from the quarries of the state"—and immediately add, "we believe that the complaints of the mechanics in relation to this course proceed from undue efforts to force the manufactured article into the market at an extremely low price for the labor bestowed upon it."

Thus we see the motive which induced the state to found a prison at Sing Sing, viz. to employ the convicts in quarrying marble, so as not to interfere with the mechanical trades, is no longer to be regarded, and the convicts may be employed by contractors in working marble which has been quarried elsewhere. This, of course, in the eyes of these sage legislators, could not be considered as interfering with the labor of free mechanics.

The prosecution of manufactures thus encouraged and carried on, increased to such an extent as to affect more seriously than ever the interests of the mechanics. During the year 1833 nothing was done in the assembly. In the senate, however, several petitions were presented, and on the 30th of January Mr. Kemble submitted the following resolution, which was adopted.

"*Resolved*, That the committee on state prisons be instructed to inquire into the expediency of regulating the character and prices of the labor of the convicts, so that the same may not interfere with the free labor of mechanics and citizens, and that they report by bill or otherwise."

No more was said on the subject in the senate at this session; but the next year, Mr. McDonald, from the committee on prisons, reported a bill adverse to the petitioners.

In 1833 and 4, more petitions were presented on this subject than were ever presented to that body on any other occasion whatever. They flowed in from all quarters of the state, (sustained by more than 20,000 signatures) from Troy, Tompkins, Arcadia, Cayuga, Yates, Erie, Auburn, Onondaga, Albany, Rochester, Wayne, Brooklyn, Palmyra, Buffalo, Utica, Elmira, Skaneateles, and three several ones from New York city, one of which contained 12,038 signatures!

These memorials were referred to a select committee of one from each senate district, of which committee the honorable CHARLES HUMPHREY was chairman. That gentleman submitted the report of the committee to the assembly March 31st, 1834 [doc. No. 352]; and we take this occasion to remark, that the report of Mr. Humphrey is an able, candid, and valuable document, reflecting great credit on his character as a statesman, and evinces on his part a determination to redress the wrongs of injured and insulted mechanics. The bill and concurrent resolution he introduced, entitle him to the thanks of the mechanics of the state.

Mr. H's bill provided for the appointment of three commissioners to examine into all matters relating to the state prisons of this state, and that they should report to the legislature at its next session. It also provided, [sec. 4,] "If in the opinion of said commissioners any mechanical trade carried on in either of said prisons ought to be discontinued, by reason of its injurious competition with the labor of mechanics and artizans out of prison, or for other cause, the said commissioners shall report the same to the governor, who may direct that such labor shall cease in said prisons, upon such terms and at such times as he shall deem expedient, with reference to existing contracts."

Previous to the passage of the bill, this section, which mechanics considered the only important one, was struck out, much to their disappointment and mortification.

The concurrent resolution, "That our senators in congress be instrusted, and the representatives requested, to use their endeavors to procure the passage of a law in relation to the transportation of felons," was never called up, having been laid on the table.

The commissioners appointed under the "act concerning state prisons," introduced by Mr. Humphrey, submitted their report to the assembly Jan. 29. 1835, [doc. 135,] and the select committee on the governor's message relating to state prisons, presented a majority and minority reports, March 27th, 1835 [doc. 330]. The majority introduced a bill embodying principally the views of the commissioners; and on the 11th of May, 1835, a law concerning prisons was passed, which is the last that has been enacted in relation to the employment of convicts at mechanical trades.

This was deemed insufficient at that time, and the mechanics assembled at Utica in 1835, predicted that it would utterly fail to afford them relief, and this prediction has been too fully verified.

On this law we subjoin the remarks of a committee appointed in 1840, by the mechanics of N. York city, and presented to the legislature in that session.

"If all that is contained in the reports of the commissioners and committees in relation to the present system be true; if it has been brought to a high degree of perfection; if it be the best system extant; if it be well worth the labor it has cost, and its usefulness should not be impaired; if we say all this be true of this system, and that the legislature believed it to be true, is it not passing strange that they should pass a law which it was pretended would produce a change in that very system! How can we account for this strange procedure, this apparent inconsistent course of conduct? We are irresistibly brought to the conclusion that the legislature discredited the statements made, and considering the alterations necessary, passed the bill, expecting it would have this effect; or that it was passed, not for the purpose of granting relief to indignant and injured mechanics, who, throughout the state, were moving *en masse* on this subject, but to lull them to rest under a false security, by leading them to believe that the bill would procure them relief, while it was never intended to have that effect. We believe ourselves warranted in saying that the bill in question was passed with no other intention than to blind the eyes of mechanics, by the specious and contradictory nature of its details; that it never was intended to relieve them, and that its passage was an outrage on their feelings, and an insult to their understandings, inasmuch as it supposed mechanics too ignorant to discover the cheat."

Experiment having proved the insufficiency of this law, the mechanics again in 1840 sent in memorials from every quarter, praying the adoption of some measure that would effectually do away with the evil of which they so much complained. Petitions were presented from Onondaga, Herkimer, Saratoga, Cayuga, Columbia, Monroe, Orleans, Yates, Poughkeepsie, Chemung, including 15 from Albany, 2 from Greene, 2 from Otsego, 2 from Rensselaer, and several from New York, one of which contained 4,763 signatures.

A report also from a committee appointed by the mechanics of New York, to which we have before referred, was presented, and with the various memorials read and referred to a select committee. This committee, of which Mr. Derrick Sibley was chairman, presented a report at the same session, admitting the evil complained of, and decidedly and unequivocally favorable to the mechanic. They recommended that the convicts be employed on state works, or that solitary confinement be adopted, with the same regulations as the Philadelphia system. Many important facts are presented relative to the superiority of the Philadelphia system, which seems to afford the best ground for relief. To this we shall have occasion again to refer.

This committeee introduced a bill at the same time. Mr. Wier endeavored to amend the same bill by striking out the whole, and inserting another, providing that hereafter as fast as the contracts expire the convicts be employed in making such alterations in the prisons as necessary to their solitary confinement, and that those sent there hereafter be employed otherwise than in the mechanical trades, except those who were mechanics previously, and they were to be employed if practicable in their respective trades; that all articles hereafter be sold at auction, and that the terms of imprisonment be proportionally shortened. This, however, did not succeed. In fact nothing of importance was adopted, and the question remains the same essentially as in 1835. The evil is increasing daily, and with all the reports and counter reports the aspect is the same.

The reports of 1833–4–5, are of great interest, and the rights of the mechanics are well maintained. The reports of Mr. Humphrey, Mr. Roosevelt, Mr. Clark and Mr. Sibley, are unanswerable, but they have all failed to produce the desired effect.

These reports will command our attention, and at a future time, not far distant, we shall take them in their regular succession, and place such parts before our readers as we shall deem of importance, with accompanying andu running remarks.

The above is a hasty sketch of the legislative proceedings, and is intended merely to show the efforts that have been made, and impress the mechanics with a sense of the importance of vigorous exertion. Let not past discouragements damp your ardor, but let your energies be directed with increased vigor, and final success will amply repay you for your toil, and relieve you from the burthen and disgrace of convict labor.

The field is wide, and much remains to be accomplished, but we entertain no doubts of ultimate success. Petition your legislature again, and if we fail, we shall take such measures as will command a hearing, even from unwilling ears. SCRUTATOR.

## INVENTIONS AND DISCOVERIES.

### ELECTRO MAGNETIC LOCOMOTIVE.

The following annunciation of a vast improvement by a new modification of mechanical power is from a Parisian scientific paper, and must, we should think, attract very generally the public attention.

A letter has been received from Leipzig, dated 23d July, stated that Mr. Lewis Gabriel Stochrer, a mechanician of that city, has just finished an electro magnetic locomotive, the greatest part of which is constructed after Mr. Wagner's plan, and which has been purchased by the Germanic Diet. The locomotive is of seven horse power, and will draw three cars full of passengers. It costs about $1,000, instead of $7,500, the costs of a common steam locomotive; the supply for it amounts to not more than 50 cents per day.

The experiments which have been made with Mr. Stochrer's locomotive on the railroad between Leipzig and Dresden left nothing to be desired.

### TRANSPORTATION OF COTTON.

A patent has recently been obtained by George R. Griffin, Esq., of Alabama, for an improvement in the manner of transporting cotton to market by water, which promises to be a thing of great importance to the producers of that article, as its conveyance is rendered independant of steamboats or other vessels, and can be effected when the water in our rivers is so low as not to admit the passing of the lightest craft. The bales of cotton are made into rafts, and for this purpose cases of water proof canvass are provided for each bale which shall cover its bottom and four sides; and these are to be furnished with a lid of the same materials, which in periods of heavy rain may be made to cover the top or upper part; also provision is made for combining these bales together so as to form a raft of any desired dimensions. In narrow passes they may be so arranged as not to have more than two bales in width, and when the channel admits the width may be increased *ad libitum*.

A well packed bale of two feet in height will not draw more than six inches in water; and should the bale ground they may be floated off without injury. Boards are to be loosely laid upon the bale to facilitate the walking upon the raft. The envelopes will last a number of years, and will soon repay their first cost. In one disastrous year it is said that half a million of dollars were lost by the destruction of cotton on our rivers, and every year the loss is immense. When we add to this the impossibility of navigating our waters at many seasons of the year which the mode of conveyance in question appears likely to obviate, its actual economy may become a great recommendation to it. At all events, the patentee, who is well acquainted with the business has evinced his own confidence in the utility of the plan by ordering a sufficient number of the water-proof envelopes to give at his own expense a practical demonstration of its value; and who will not wish him the most perfect success?

### WALKING ON THE WATER.

A Mr. Evens, of Cincinnati, has invented what the Gazette calls a "life preserver indeed." The Gazette describes it as a "garment, water tight, to encase the feet, legs, and the body to near the the latter is fitted a large life preserver. To the hands are fixed paddles. The buoyant power of this garment is so great, as to float any one for hours, *without* getting wet."

Evens puts on his garment, steps into the Ohio, and walks about as long and as far as he chooses. Since he has brought out his walking-in-the-water apparatus, the Cincinnatians have given up their favorite notion of tunneling the Ohio!

### GLOSS BELL.

A glass church bell has recently been cast in Sweden, 6 feet in diameter whose tone we are told is finer than any metal bell.

### TEXAS COTTON.

The Hon. A. Hutchinson, in a letter to M. B. Lamar, President of the Republic of Texas, describes at some length a species of cotton found in the western part of Texas, which he has been pleased to term the silk cotton, owing to its superior fineness and whiteness. It is said to be of luxuriant growth, and is generally regarded as of the South Sea variety.

### TIN ORE.

A bed of tin ore, about twenty miles square, has been lately discovered in Iowa. It is believed to be the first mine of that ore found in this country.

### SALT SPRING.

The Rochester Democrat says:—A salt spring has been opened in the town of Galen, county of Wayne, about fifty rods from the Erie canal, on land of the Rev. Dr. Judd, of Ithaca, with the fairest prospect of the best of brine and even of the fossil salt, as is evinced by comparing the borings in Europe and the late boring near Abingdon, in Virginia, with the report of the engineer employed at Galen. The diameter of the tube bored is 4 inches, 230 feet deep.—The vein is strong, and continues to run profusely over the tube, destroying all vegetation within its reach. It is uncommonly pure, producing the finest salt without the use of lime. The brine is forced up by the gas with a violence known no where else.

### COPPER ORES ON LAKE SUPERIOR.

The New York Post learns, from authority entitled to credence that the discovery of ores of copper recently made by the state geologist, on the shores of Lake Superior, are of a character to gratify the highest anticipations before entertained. The veins have been traced, at intervals, for upwards of one hundred miles, and are found to possess all the essential features of the Cornwall mines. They do not, however, require to be pursued at such great depth below the surface. Dr. D. Houghton has analyzed the ore blasted from the veins, and pronounces it to be of the richest kind. Mr. Schoolcraft has brought to New York specimens of the various kinds of ore, and the native copper found along with it; one of the latter is a pure mass of forty pounds.

### TUNNEL THROUGH THE ALPS.

The King of Sardinia, does not appear disposed to abandon the project of cutting a tunnel through the Alps, in order to faciltate the communications between France and Italy. The necessity for abandoning the present road over Mount Cenis is allowed; the new projected road will pass over Oulx, following the course of the Poire, and ascending a narrow valley in a northwesterly direction, leading directly to the foot of an elevated peak, through which a tunnel can be readily cut, as its length will not be more than 20,000 feet

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Eighteen millions of dollars have been invested in railroads, within the limits of Massachusetts, all of which, when finished, have paid, beyond expenses, repairs, &c., an interest of six per cent. So says the Salem Gazette.

There are between eleven and twelve millions of the inhabitants of France whose poverty is such that they are unable to taste of butcher's meat from one year's end to another.

The Irish have finally succeeded in applying steam to that important branch of domestic industry, rocking of cradles. It is an important step in modern discovery, by which an engine of a *child of two years old power*, does the business with infinitely greater regularity than the two of the most experienced nurse can attain.

A splendid hotel has recently been erected in St. Louis, at an expense of $200,000. It is 230 feet in length, 5 stories high, including the basement, and

THE FIRST AMERICAN LOCOMOTIVE,

OR, EVANS' ERUCTOR AMPHIBOLIS.

## EMINENT MECHANICS AND ARTISTS.

### OLIVER EVANS.

Concluded.

In consequence of the determination previously alluded to, Mr. Evans commenced and had made considerable progress in the construction of a steam carriage, when the idea occurred to him, that as his steam engine was altogether different in form, as well as in principle, from any other in use, a patent could be obtained for it, and then applied to mills, more profitably than to carriages. The steam carriage was accordingly laid aside for a season of more leisure, and the construction of a small engine was commenced, with a cylinder six inches in diameter, and piston of eighteen inches stroke, for a mill to grind plaster of Paris. The expense of its construction far exceeded Mr. Evans' calculations, and before the engine was finished he found it cost him all he was worth. He had then to begin the world anew, at the age of forty-eight, with a large family to support, and that too with a knowledge, that if the trial failed his credit would be entirely ruined, and his prospects for the remainder of life dark and gloomy. But fortune favored him, and his success was complete.

In a brief account given by himself of his experiments in steam, he says, "I could break and grind three hundred bushels of plaster of Paris, or twelve tons, in twenty-four hours; and to show its operations more fully to the public, I applied it to saw stone, on the side of Market-street, where the driving of twelve saws in heavy frames, sawing at the rate of one hundred feet of marble in twelve hours, made a great show and excited much attention. I thought this was sufficient to convince the thousands of spectators of the utility of my discovery, but I frequently heard them inquire if the power could be applied to saw timber, as well as stone, to grind grain, propel boats, &c., and though I answered in the affirmative, they still doubted. I therefore determined to apply my engine to all new uses; to introduce it and them to the public. This experiment completely tested the correctness of my principles. The power of my engine rises in a geometrical proportion, while the consumption of fuel has only an arithmetical ratio; in such proportion that every time I added one fourth more to the consumption of the fuel, its powers were doubled; and that twice the quantity of fuel required to drive one saw, would drive sixteen saws at least; for when I drove two saws the consumption was eight bushels of coal in twelve hours, but when twelve saws were driven, the consumption was not more than ten bushels; so that the more we resist the steam, the greater is the effect of the engine. On these principles very light but powerful engines can be made suitable for propelling boats and land carriages, without the great encumbrance of their weight as mentioned in Latrobe's demonstration.

In the year 1804, Mr. Evans, by order of the board of health of Philadelphia, constructed at his works, situated a mile and a half from the water, a machine for cleaning docks. It consisted of a large flat or scow, with a steam engine of the power of five horses on board, to work machinery, in raising the mud into scows. This was considered a fine opportunity to show the public that his engine could propel both land and water conveyances. When the machine was finished, he fixed, in a rough and temporary manner, wheels with wooden axletrees, and of course, under the influence of great friction. Although the whole weight was equal to two hundred barrels of flour, yet his small engine propelled it up Market street, and round the circle to the water works, where it was launched into the Schuylkill. A paddle wheel was then applied to its stern, and it thus sailed down that river to the Delaware, a distance of sixteen miles, leaving all vessels that were under sail at least half way, (the wind being ahead,) in the presence of thousands of spectators, which he supposed would have convinced them of the practicability of steam boats and steam carriages. But no allowance was made by the public for the disproportion of the engine to its load, nor for the rough manner in which the machinery was fixed, or the great friction and ill form of the boat, but it was supposed that this was the utmost it could perform. Some individuals undertook to ridicule this experiment of driving so great a weight on land, because the motion was too slow to be useful. The inventor silenced them by answering that he would make a carriage propelled by steam, for a wager of three thousand dollars, to run upon a level road, against the swiftest horse that could be produced. This machine Evans named the Eructor Amphibolis, which is believed to have been the *first application, in America, of steam power to the propelling of land carriages.*

On the 25th of September, 1804, Evans submitted to the consideration of the Lancaster turnpike company, a statement of the costs and profits of a steam carriage to carry one hundred barrels of flour, fifty miles in twenty-four hours; tending to show, that one such steam carriage would make more nett profits than ten wagons, drawn by five horses each, on a good turnpike road, and offering to build one at a very low price. His address closed as follows: "It is too much for an individual to put in operation every improvement which he may invent. I have no doubt but that my engines will propel boats against the current of the Mississippi, and wagons on turnpike roads, with great profit. I now call upon those whose interest it is, to carry this invention into effect. All which is respectfully submitted to your consideration." Little or no attention was paid to the offer.

Had Evans received the patronage and pecuniary assistance that fell to the lot of Fulton, there is no doubt but he might have shown steam boats in operation fifteen or twenty years previous to the successful experiments of that ingenious individual. This probability is strengthened by the fact, that his engine, *the first ever invented on the high-pressure principle*, is the only one that can be applied on railways, and is now in universal use on the Mississippi and other rapid rivers, where great power is required.

While Evans' conceptions respecting the power of steam reflect the highest credit upon his sagacity and talent, his predictions of his application may well be termed prophetic. In some of his writings, published in the early part of the present century, he remarks: "The time will come when people will travel in stages, moved by steam engines, from one city to another, almost as fast as birds fly, fifteen or twenty miles an hour. Passing through the air with such velocity, changing the scene in such rapid succession, will be the most rapid exhilarating exercise. A carrriage (steam) will set out from Washington in the morning, the passengers will breakfast at Baltimore, dine at Philadelphia, and sup in New York the same day. To accomplish this, two sets of railways will be laid, so nearly level as not in any way to deviate more than two degrees from a horizontal line, made of wood or iron, or smooth paths of broken stone or gravel, with a rail to guide the carriages so that they may pass each other in different directions, and travel by night as well as by day. Engines will drive boats ten or twelve miles per hour, and there will be many hundred steam boats running on the Mississippi, as predicted years ago."

After a lapse of years, as the improvements in the manufacture of flour gradually came into popular use, the inducements to infringe upon Evans' right increased, until he was obliged to appeal for redness to the United States circuit court of Pennsylvania. But, through some informality in the patent, an unfavorable decision was given. Thus was he deprived of all means of recovering what was so justly due. Agreeable to the request of counsel, he then petitioned congress for a new patent. In stating his case, he observed, "that he had been at a great expence, in publishing and disseminating these inventions, travelling either by himself or agents for thirteen years, throughout the country, from state to state, and from mill to mill, to instruct workman in their manufacture, and millers their use: and in this way had expended the small fees which were received from those who had generously and freely paid for their license." These arguments were so clearly founded on justice, that government could not but listen to his claims, and the petition was granted, January 21, 1808.

Ere long, a memorial was presented to congress by John Worthington, Elisha Tyson, and other interested millers, against Oliver Evans, stating "that the public had been grossly deceived in regard to Evans being the original inventor of his patented mill machines; for, so far from having invented ALL, he was not the original inventor of any of them: and that they could not believe that those in authority intended to let loose upon the community this exorbitant monopolist with so grievous and despotic a power. They therefore petitioned to have the subject once more taken into consideration." Evans immediately presented a counter memorial, in which he completely proved the falsity of their statements, and the interested motives of his opponents. Independent of this, some of the most prominent individuals in the community, on this and other occasions, came forward unsolicited with their testimony in his behalf. In the result, Evans was sustained.

A few years subsequent to his marriage, Mr. Evans removed to Philadelphia, where he finally established an iron foundry and steam factory. Here he prepared his two works for the press, viz. the Young Millwright's and the Young Steam Engineer's Guides, —productions every way worthy of their author. In 1810, his two sons-in-law, Messrs. James Rush and David Muhlenburg, joined and continued in business with him until the time of his decease, which took place from an inflammation of the lungs, April 21st, 1819.

### THE POET OF THE POOR.

Ebenezer Elliot, a poor iron dealer of Sheffield, Eng., sprung from the lowest ranks, is astonishing the world, by strains worthy of a Burns. The following comparison of the outward and visible glories of creation, with the prospects which are opening on society from the light of knowledge, is extracted from one of his recent productions.

God said, "let there be light!"
Grim darkness felt his might,
And fled away;
Then startled seas, and mountains cold,
Shone forth all bright in blue and gold,
And cried, "'Tis day, 'tis day!"

"Hail holy light!" exclaimed
The thunderous cloud that flamed
O'er dasies white;
And lo! the rose, in crimson dress'd
Leaned sweetly o'er the lily's breast,
And blushing murmur'd "Light."

Then was the sky-lark born,
Then rose the embattled corn—
Then floods of praise
Flowed o'er the sunny hills of noon:
And then, in stillest night, the moon
Poured forth her pensive lays;
Lo! heaven's bright bow is glad!
Lo! trees and flowers all clad
In glory, bloom.

And shall the immortal sons of God
Be senseless as the untrodden clod,
And darker than the tomb?
No, by the MIND of man!
By the *sweet* artizan!
By God, our sire!
Our souls have holy light within,
And every form of grief and sin,
Shall see and feel its fire.

By earth, and hell and heaven,
The shroud of souls is riven!
Mind, mind alone
Is light and hope, and life, and power.
Earth's deepest night, from this blessed hour,
The night of mind, is gone!

ALBANY, SATURDAY, DEC. 4, 1841.

AGENTS are wanted to extend the circulation of this paper throughout the towns and counties of this State, and in the different States of the Union. Application made to the publishers, *post paid*, will be attended to.

SUBSCRIPTION LISTS should now be sent in with as little delay as possible. From the north, the east and the south, our encouragements are *substantial*. From the west, where we expected the most, it has as yet been next to nothing. We are confident, however, that our friends in that quarter are not lying upon their oars.

The paper will now be published regularly and punctually every Saturday for one year, at all hazards. There may be some difficulty in getting the paper correctly delivered in the city for a week or two, and we shall have to ask a little patience of subscribers till we get such matters regulated.

## "DECLARATION."

"Whenever in the course of events" it so happens that a new journal makes its appearance in this breathing world, we are from custom led to expect a long and elaborate declaration, setting forth particularly and pointedly the course to be pursued, the principles to be advocated and sustained, the errors to be avoided, and the true policy to be adopted. To all this we have not the least objection. Indeed, the public have a right to know the precise position of the candidate for public favor, and generally possessing a safe credulity, are seldom greatly disappointed, should the "declaration of principles" be entirely forgotten, the remembrance lost, before the waning of a single moon. Experience has taught them to distrust men's profession, and, while we lament the fact that too often, after having been once spoken they pass unheeded, and subsequent practice affords too much ground for distrust, yet we hope on this point to *prove* our professions; they are given sincerely, and we trust will be so received. To have the world understand fully our position is our sincere desire. We wish no concealment and shall avoid all ambiguity.

In a previous number our objects are given at some length, but the questions daily asked us, induce us to believe that our policy, if not our principles, are not fully understood. That our paper is the organ of the mechanics, and devoted to their interests, is well known. Over these interests we shall have a jealous eye, and shall zealously assert and defend them so long as they do not conflict with the general weal. We do not wish to make them paramount over every class, but only to maintain their proper elevation and their proper rank. The interests of the mechanic are identified with those of every other class, with them he is embarked in a common bottom, and on their healthiness must in a great measure depend his own. Bad laws affect all equally. Evil counsel and its results will be felt by the whole community, and of that community the mechanics form no small portion. In the great social machine he performs an important function; his interests, as connected with the common prosperity, claim the attention of government, and he is called upon not only personally but as connected with a class and with society at large, to exercise his influence, his rights as a freeman, to promote the general prosperity and the public good. To this end it is absolutely necessary to have *good laws*; to their general excellence as they now exist is attributed in no small degree the exalted position he now sustains relative to the same class in other lands, and under less enlightened governments.

The great questions of public policy, and the manner in which they are decided must also affect the mechanic. In their decision he has a voice; is it not important that he should investigate their bearings and results, not over the wine cup, with loud and angry words, but calmly and dispassionately; not with the heat and prejudice of a partisan, but with the coolness and candor of a reasonable being. When, therefore, we disclaim any connection with politics, we must not be understood to convey the idea that on the vital questions which divide the public mind we shall be silent—dumb. Such a course we conceive to be criminal. On every great measure we shall speak our mind freely—our pages will be open to their discussion; but they must be discussed calmly and temperately. It is useless, it is wrong to appeal to passion or madly fan the embers of discord. Against all wrong we have a sure remedy, quiet and still, but as powerful and efficacious as the wildest ebullition of physical force. *Fiat justitia ruat cælum*, is our motto, and to arrive at TRUTH our aim. In the pursuance, then, of our duty, we shall know no party. Against wrong, be it disguised in ever so specious a shape, let it come from whatever source, we shall always wage an uncompromising warfare. To maintain the dignity and rights of the mechanic, as such; his interests, as connected with those of his fellow men, will be our principal object; and in doing this, we shall ever be the determined advocates and supporters of right, unswayed by party, untrammelled by prejudice.

## LEGISLATIVE ACTION ON THE STATE PRISON QUESTION.

The existing State Prison Laws, the question of their repeal or modification, is a subject which will claim the attention of our Legislature at its ensuing session. Of the importance and necessity of some change, the Mechanic, at least is well convinced, and in its final disposition he will feel no little anxiety. Whether the grievances of which he complains will be redressed, is a question to which, at present, we can give no definite answer. For our own part, we must confess, we entertain but faint hope. Be this as it may, the subject will be presented to the Legislature, not as a political appeal, to be granted on political grounds, nor as a mere question of *policy*, but as a demand for justice, a question of *right*. We ask a change simply because the existing laws are oppressive in their influence on a class, open and subject to the grossest abuses. The entire system is obnoxious. To exhibit these abuses is not our object at present. It is to impress upon the mechanic the importance of preserving the question in its present shape, so as to leave him at the same time free to his political preferences. We do not wish to make it a political question, but if we cannot obtain justice otherwise we shall be first to unfurl the banner, and demand it through the ballot-box. We are committed to no party, we shall petition no party, but ask our legislature collectively and individually, not as politicians but as men, to do us justice, and a malediction rest on him who seeks to entangle the subject in the meshes of party. We have no doubt but we shall ultimately be able to carry our point, let the worst happen; we have embarked with this determination. Disappointment will not prostrate our energies, but we wish no delay. We demand immediate reparation for a wrong under which we have long enough labored. There must be no evasion. The wrong is obvious, the present system has been tried; of it, we can speak definitely. It is no theoretical grievance or anticipated wrong, but existing evil. Evil—too many have found it to their bitter cost! The Legislature must now meet it fairly, it has been before them once, and evaded; but we repeat, *it must now be met*. There must be no artful pretence, to put it off, to shift responsibility—no act will pass unscrutinized; let sleek policy intrude its cautious front, and we sound the alarum.

Our obligations to both parties are equal, let them meet for once on common ground. Pending an important election both were suddenly interested in our welfare, their optics were marvellously improved; our wrongs were very evident. At that crisis both vied with each other in protestations of sincerity, and that many tongued monster, the political press, spoke honied words, words of encouragement and sympathy—and now all we ask is, *prove your professions, redeem your promises!*

We have on record all that has been promised, and we hope shall never be constrained to refer to them to sustain a charge of inconsistency. We hope the ominous silence in certain quarters, is not to be construed unfavorably, (now that the "ides of November" are past,) nor that the seeming non-committal policy pursued elsewhere, is to be carried out this winter. We are willing to wait a proper season, and are prepared for every emergency, but we must lift our voices against all unnecessary delay. The accomplishment of this object will pave the way for higher attainments in the arts, and inspire mechanics with new energy. Let the state employ her convicts on state works, and not enter into competition with her own citizens. Let her not encourage individual monopolies at the expense of the interests of the mass, but extend her protection equally to all, and thereby attain the true ends of a Free Government.

## MASSACHUSETTS CHARITABLE MECHANIC ASSOCIATION.

This Association was instituted in March 1795, and incorporated in March 1806. Its objects are stated to be "promoting mutual good offices and fellowship, assisting the necessitous, encouraging the ingenious, and rewarding fidelity." To further these ends its by-laws seem to be eminently fitted; and the results of the labors of the Association afford the best proofs of the wisdom of its general organization, and attest the faithfulness of its managers. We have not the room now to go into a minute detail of its government, and must limit our notice to its more general features.

A restriction to mechanics and manufacturers is imposed in the admission of regular members, and of those admitted certain qualifications are required, which, while they exclude many, (and perhaps the exclusion is carried too far,) must render a simple admission to membership an honor worthy of possession.

At the expiration of the term of apprenticeship, any apprentice who brings from his master a certificate of the faithful discharge of his duties as an apprentice, receives another certificate, under the seal of the Association and signed by its officers, setting forth such faithful discharge of his duties, and recommending him to the good will, protection and encouragement of those among whom his lot may be cast. This must often prove of essential benefit to the enterprising young mechanic who commences business in a

land of strangers; and holds out an inducement to the apprentice for fidelity and faithfulness to his obligations, which, in some cases, may be the determining cause to a life of sobriety and usefulness against one of dissipation or roving recklessness.

The Association, too, as its name indicates, is distinguishingly a "charitable" one. Its by-laws provide that at the death of a member the sum of forty dollars shall be presented to his widow or family; or if without widow or family, the like sum shall be appropriated for his funeral expenses. A relief committee is also annually chosen, who are vested with ample powers in the alleviation of distress among its members; the committee may at any time bestow an amount as great as twenty dollars upon any member, or the family of a deceased member, at home or abroad, whose necessities may require relief.

The "encouragement of the ingenious" is likewise a leading object of the Association; and in aid of this purpose, in the year 1837, a fair similar to the fairs of the American and Mechanics' Institutes in this state, was opened in the city of Boston, at Faneuil and Quincy Halls. At that fair upwards of 1,100 articles were exhibited, embracing almost every article of mechanical skill and manufactured product. Annual fairs have since been held in the same city, each succeeding one superior to its predecessor in the number of articles exhibited, and in their beauty and workmanship. The report of the board of managers of the second fair states that more than 70,000 persons visited that fair, and the admittance receipts from the one for the present year exceeds $15,000. An address is delivered before the Association upon every such occasion, and that the reader may judge of the character of the addresses, and the talent which the Association can command, we shall at an early day publish extracts from the address delivered before it in 1833 by the Hon. James T. Austin. The Hon. Edward Everett was the speaker at the first fair, the year previous.

The honorary members of the Association present such an array of distinguished names that we subjoin them; they comprise all from its organization, and those marked with a * are now deceased:—Hon. John Adams,* Nathaniel Bowditch, LL. D.,* Hon. John Brooks,* Hon. John Davis, Benj. Dearborn, Esq.,* Wm. H. Eliot, Esq.,* Hon. Edward Everett, Hon. Christopher Gore,* Hon. Wm. Gray,* Hon. John Coffin Johns,* Gen. Lafayette,* Hon. Abbot Lawrence, Hon. Levi Lincoln, Hon. James Lloyd,* Hon. Theodore Lyman, jr., Hon. Harrison G. Otis, James Perkins, Esq.,* Hon. John Phillips,* Hon. Wm. Phillips,* Hon. Josiah Quincy, Charles Sprague, Esq., Wm. Sturgis, Esq., Hon. Wm. Sullivan, Hon. Daniel Webster, Hon. Thomas L. Winthrop.

In the formation of the New York State Mechanic Association, the Massachusetts Association was frequently referred to, and we commend to the attention of the members of our own society the organization and labors of the one in our sister state. We are indebted for the information contained in this article to the documents forwarded by the obliging Secretary of the latter Association to a gentleman in this city, and any similar kindness which may be extended to us, or information communicated in any other manner relative to its past or present condition and its prospects, will be thankfully received and fully appreciated.

## GROWTH OF CITIES.

The increase of wealth and population in our cities is unprecedented in the world. Gold, which attracted adventurers to South America, and caused cities and towns to spring up like mushrooms in the night, is not the talisman which has produced the like phenomena here. Industry and economy, active trade and commerce, have given permanent force to the onward motion, and until these motive powers are crippled by unwise laws or illegitimate moneyed influence, we shall continue to excite the wonder or the envy of the kingdoms of the earth.

The number of brick buildings erected this year in Philadelphia is 446; in the suburbs about 350. The following table of the buildings erected during the last nine years, includes those of the city proper only, and does not embrace the wooden buildings, which are undoubtedly numerous:

| | | |
|---|---|---|
| 1833.....492 | 1836 ....369 | 1839.....393 |
| 1834.....361 | 1837.....248 | 1840.....379 |
| 1835.....465 | 1838.....248 | 1841.....446 |

In Cincinnati, it is stated that 827 buildings have been erected since the first of October, including the suburbs. This estimate probably includes all kinds of buildings, for it is added that nearly all of them are at the termination of the rail road or canal.

In St. Louis, the number of "substantial buildings of the largest class" erected during the past year is reckoned at not less than *one thousand;* the estimated cost of which ranges from three to forty thousand dollars each.

## PRESERVATION OF WOODS.

Dr. Boucherie of Bordeaux, availing himself of the knowledge of the fact that the sap of trees will take up and disseminate throughout every portion of the plant many substances, has, by a series of ingenious experiments upon living trees and those recently cut down, succeeded in so impregnating the wood as to put at defiance all the ordinary causes of decay, while all the important qualities of the wood are still preserved. It is more than twenty years since we knew that the Shakers were in the habit of boring holes into their fruit and shade trees and filling them with flowers of sulphur which was so rapidly taken up by the sap and conveyed to the most remote fibre of every leaf as to expel the catterpillars which were devouring them, in less than 24 hours. The old Elm tree, at the corner of State and Pearl street, is a specimen of the beneficial effects resulting from this procedure.

Dr. Boucherie seems entitled to the honor of applying it to equally important and far more general purposes. He found that by employing liquid solutions of various salts, they insinuated themselves through the whole organization of the woody fibre, from the trunk to the most delicate portion of the leaves. That the salts, if of an antiseptic quality combining with the mucilagenous or solid particles, destroyed forever all tendency to fermentation, and consequently to decomposition. By sawing into the trunk of a living tree the solutions can be applied, or by immersing the butt of the tree when recently cut down, in them. The waters of salt will communicate to wood great flexibility which is retained after long exposure to the air. Pyroliginite of iron so hardens it that a thin plank becomes impenetrable to a musket ball and at the same time saves it from decay. Solutions imparting color and smell, communicate to wood their valuable properties so as to fit it for the heaviest works as well as for the richest and most delicate furniture—others render it incombustible or fire proof.

The effects which this process may impart to the arts is beyond the power of imagination. In this country especially, where wood is so abundant, we hope to see that it will soon be reduced to practice. What an era will that be when our ships of commerce and war need no longer to be sheathed with copper and are rendered impenetrable by balls, incombustible, and incapable of decay. When our neat and convenient wooden dwellings and workshops shall bid defiance to fire and retain their original beauty undestroyed by age? Will not some of our ingenious mechanics render us independent of foreign countries for our supplies of mahogany and all other beautiful woods employed by the cabinet and chair maker?

Here is a vast field for the exertion of the highest intelligence and invention. And we have here another proof that intelligence and activity are only productive of beneficial results when exerted in unison with the laws of nature—never when in opposition to them.

### MEMORIALS.

Mechanics should now circulate their Memorials to the coming Legislature, upon the subject of Mechanical Labor in the prisons of this State. They should recollect that at their State Convention, it was resolved to take nothing less than the relief justly due them—that is, *entire and complete removal of all competition and association with these degraded fellows.*

On our 2d page will be found a history of the State Prison question brought down to the last session. In our next we shall give an abstract of the proceedings of the State Convention.

### THE SYRACUSEAN AND MECHANICS' AND FARMERS' ADVOCATE.

We have received the first number of the above paper, printed by J. Barber, a veteran newspaper publisher, who has lately been called from the plough to resume his editorial duties. It is one of the best printed newspapers in the state, and under the charge of Mr. B., will be found worthy of the patronage of the Syracusans. A portion of its columns will be devoted to the mechanic interest. Success attend it.

### NANTUCKET INQUIRER—THANKSGIVING.

We have lately fallen in with an old acquaintance, the *Nantucket Inquirer*, formerly conducted by Samuel H., now by William A. Jenks. Pray William where is Sam? We used to look for his weekly appearance, in the dawn of our typographical career, with great anticipations of something rare, and in a venerable old scrap book have we treasured up many a gem from his pen. One of them, appropriate to the season, follows these remarks. It was written shortly after he was decoyed from the editorial stool of the *Inquirer*, to take charge of a Boston daily. This step seems to have proved fatal to his literary pursuits; for, soon getting into politics, where he ultimately shipwrecked, his pen ceased to weave those fine sketches that it wove before. Whether it was that dainty dinners bankrupted his wits, or that fame made him giddy, or that politics damped the fire of his imagination—he merged in obscurity. His name stood for a while as co-editor of a second rate political paper in New-York—the only evidence that he had not gone down to Pluto. We afterwards learned that he had gone back to sojourn in the isle that witnessed the dawning of his fame, where he could scent the vivifying odor of his native element, but lost sight of him in the long interim of our newspaper career. The article we give below is worth all the politics he ever wrote; and if the reader has ever mingled in the preparations and festivities of a New-England thanksgiving, he will live the scene over again.

"Now hath arrived the festival proclaimed of yore, when the straight bodied grandfathers of our goodly commonwealth found themselves planted triumphantly in the land whilom enjoyed by heathen salvages. Now doth the carnival prevail, and the chief magistrate ordaineth stuffing. Lo! the farmer fatteneth beeves and swine, and the flesher cutteth up briskets and spare ribs, and Jotham trudgeth to the market town therewith. Now bustling housewives wield the chopping-knife, and spread the crust and spatter the treacle; while buteous Molly brandisheth the carver dealing death to ducks and diddles; across some hickory log she also guillotineth the patriarchal rooster, slasheth likewise the weasand of dame Partlet, her age of laying past! His last gobble hath the gray gander gotten, and the fantailed turkey bidden farewell to herbage, and the porker grunted moodily in mud his greasy requiem. The larder groaneth with the burthen of bacon, and the stall staggereth beneath mountains of mutton. There is a savor of sauce in the kitchen, and a smacking of cider in the cellar, and a pageantry of plates in the parlor. Now cometh to the table pudding and priest, goose and guest, and all things meet for the mandibles of man. Omniverous man! How doth thy foul cravings cause devastation among the feathered tribe, the fourfooted kingdom, and the vegetable empire! Dreamest thou of paradise in thy potations of porter, and presumest thou to moralize amidst thy gormandisings? Alas! for thy absorbings, thou shalt suffer tumefaction; and for thy gluttony there is in store for thee a purgatory of lumbago! A thankful heart should not be smothered in spirits, nor a grateful bosom crammed with cabbage!

Now, in cities dense, the long expected holiday brings freedom to the lads, and much fat produce to market. Mark the portly merchant from his princely meal outmarching—with gladness resting on his cheek and poultry in his stomach. Yon happy urchin, too, hath been to greet with ready compliments his antiquated aunt, while welcome issues from her lips and pastry from her pantry. Now belles, all plumed and ribboned, trip to church, with sober mind intent on piety and pie; and beaus bedizened, strut on iron heels to hear the Aorgan and the Anthem.

Now 't is a merry time in hall and hovel—while the nabob gloats with eager eye on viands luscious and far fetched, the laborer spreads before a famished household his little store of gleanings eleemosynary, teaching rudely the rudiments of gratitude. Hail! jubilee of innocence! Long may the virtues of our forefathers be remembered with 'Pu[illegible]

### WINTER NAVIGATION.

The steamer Kosciusko is being fitted up with one of Townsend's ice breakers, for the purpose of running through the ice in the Hudson as long as it may be practicable. Should the winter prove a mild one, it is not improbable that the navigation below Hudson may be kept open the whole year round. The same company intend fitting up another boat in the same manner.

### LARGE SHIP.

The new ship Rappahannock, built at Bath, Me., is the largest merchantman in the United States. She is built of Virginia oak, 180 feet in length, 37 beam, 23 1-2 depth, and of 1134 tons burden. Her masts are 90 feet long, and her anchor weighs 3700 pounds. Her masts are the longest ever known of a single tree.

### TREE PLANTING SOCIETY.

Not the least useful society in the world is this, although the sphere of its usefulness is confined to the students of an academy in the town of Monmouth, Me. The object is the promotion of ornamental tree planting, and is called the *Acernian Society*, from *acer*, the maple. The terms of admission are simple—to sign the constitution and plant a tree!

### PUBLIC LECTURES.

We behold a *new era* in public lectures. Every where we find societies springing up, with their lectures attached as a matter of course; in New-York it has grown into a rage, and become one of the *rabies* of the day. Jared *Sparks* and Dr. Lardner, with a host of satellites are nightly scorching the Gothamites with *scintillations* of science and *sparks* of eloquence, till the whole community are actually on fire—blazing at every pore. We shall soon be in the *heat* of action here. The Medical College is already in full *blast*, and the Young Men's Association is beginning to *fire up*. The Albany Institute has also raked up her embers, and there will soon be a *blaze* of no ordinary glow there. We hope the insurance offices may not bring their camphine oil law to bear upon this *light*.

## SYNOPSIS OF NEWS, ETC.

The navigation of the Erie and Champlain canals closed for the season, about the 23th of November, the last boat having been cleared at Albany on the 27th.

A gentleman of New Orleans, who left New York on the 7th of August last in the Great Western for England, returned to New Orleans on the 9th November, after an absence of 63 days, including stoppages at the various places as follows: 13 days in London, 1½ day in Liverpool, half a day in Halifax, half a day in Boston, 7½ days in New York, 2 days in Philadelphia, 1 day in Baltimore, and 1 day in Charleston—making 27 days in various cities, for business transactions, and leaving only 36 days for traveling a distance of upwards of 7000 miles, being at the rate of 200 miles per day!

The secretary of the navy's mandate against soap locks has been the death of them, alike to fashionables and the navy. The hair is now worn short and snug. Young men no longer look like Hottentots. Some of them now have quite a clean and christian aspect.

The Auburn and Rochester rail road is completed —the whole line being now finished and in good order from Albany to Rochester. The first entire trip, we believe, was made on the 4th Nov. last.

The eastern section of the New York and Erie rail road, which was finished a few weeks since for some 90 miles, goes on swimmingly, paying a handsome per centage on its cost. Its friends are charmed.

A Shower of Fishes.—During a heavy thunder shower, says a late Scotch paper, a considerable number of small fishes fell from the clouds, at the Townhill, about a mile north-east from Dunfermline. They were in general from 2 to 3½ inches in length, and although they must have fallen from a considerable height, many of them were alive after they fell, and jumping among the grass.

A London paper says, "the entire number of young creatures occupied in dress-making in this city is 15,000."

A lady has calculated that it would require three millions, two hundred and nineteen thousand, six hundred dollars! to supply the wants of John Q. Adams, as set forth lately in his poem entitled *The Wants of Man*.

The Charleston Courier notices a rare literary curiosity in that city. It is a Hebrew prayer book *thirteen hundred and fifty-seven years old!* The Courier says it is an immense volume, written in the Hebrew character, on parchment of the finest quality, altogether with a pen, and with an accuracy and beauty that makes it a master-piece of penmanship.

A meeting of the inhabitants of Scioto, Lawrence, and Jackson counties, Ohio, interested in the iron manufacture, was called for the 5th Nov. to memorialize congress against the importation of free iron, and in favor of laying additional duties on foreign iron.

It has been ascertained, from an average of many years, that the number of merchantmen wrecked annually on the coast of England amounts to upwards of five hundred; and the value of the property lost amounts to three millions sterling!

The factory girls at Lowell are publishing a periodical—"a repository of original articles, written by females employed in the mills." Did Kirk Boott ever dream of that, think ye?

The common watch ticks 17,160 times an hour; and as a good watch will sometimes run one hundred years, in that time it would tick 15,043,456,000 times. The human heart beats more than 5,000 times an hour, or 125,000 times a day; and as it occasionally lasts one hundred years, it then beats 4,383,000,000 times.

The Liverpool Mechanics' Institution is probably the most extensive and splendid establishment of the kind in the world. The building cost upwards of $65,000. It has 3,300 members; 850 pupils attend its three day schools, and 600 pupils its evening classes. It has 50 teachers regularly employed, whose salaries amount to upwards of $20,000 per annum. The library contains 7,000 volumes and there are public lectures twice a week. There are now in England 216 mechanic institutions, all of them established within fifteen years.

The New Haven Palladium says, that a splendid meteoric ball was recently seen by several persons in that city. It was superior in brilliancy to the planet Venus, and as it sailed across the sky resembled a glowing mass of burning metal. During its whole track it threw out brilliant scintillations, of a beautiful blue color, slightly tinged with red.

It is said that the inhabitants of London consume annually 65,000 pipes of wine, and 2,000,000 barrels of porter and ale, besides large quantities of spirituous liquors. The inhabitants of Paris consume annually about 16 millions gallons of wine, 600,000 do. of brandy, and 250,000 barrels of beer.

It is said that the jewels of the temple of the sun, which were secreted at the conquest of Peru by the Spaniards, have been recently discovered, and amount in value to $180,000,000!

The New Jersey state prison has, during the past year, been made to realize a profit of $4,000—and that, too, with but 151 convicts.

A cast iron lighthouse has been built in New York for the harbor of Havana. It is 18 feet in height, and will be surmounted by a lantern of about half those dimensions. The cost is estimated at $15,000.

An iron lighthouse has lately been built in England, for Morant Point, in the island of Jamaica, which is 106 feet in height. It is 18½ feet in diameter at the base, and 11½ at the top; its weight exactly 100 tons. Its entire expense will be about $25,000.

The Liverpool Times states that there have been, this year, considerable importations of cheese into England from the United States. Six hundred American cheeses were sold the other day, for 56s, to 60s per cwt. duty paid. The duty is 12s, per cwt. which leaves the cost price from 44s. to 48s. After paying the duty, the cheese might be sold at from 7½ to 8d. per lb. retail.

The weekly income of the English railway lines averages about $500,000.

It is said that more men were killed on the lakes during the last war, by the bursting of their own guns, than by the shot of the enemy. Hence the importance of a good national foundry, for the supply of guns which will do less execution at home.

The production of beet root sugar the present year, in France, is estimated at 90,000,000 pounds.

An oak in a good soil and situation, will in 75 years from the acorn, contain a ton of timber.

On looking over an English paper a few days since, we saw 13,000 bales of cotton announced as having arrived at Liverpool during about a week, from Bombay, and 12,000 during the same week from the United States. The Philadelphia Inquirer thinks our southern cotton planters should look to this matter. England is taking great strides to render herself independent of our cotton plantations, and should we not do something to render ourselves independent of her manufactures!

As there are no further elections to be held this fall, except to fill vacancies, the good people can now turn their attention to their own affairs: and those who are about to lose their offices, will do well to look out for some more stable and quiet employment, which is beyond the reach of political fluctuations.

In England the mails are carried upon nine different railways, at an average cost of *ninety dollars* per mile, and at the rate of twenty-three miles an hour. On the Utica and Schenectady road, the price paid by government for the transportation of the mails is, we believe, *three hundred dollars* per mile, and the rate of speed about fifteen miles an hour.

The Wiener Zeitung publishes an official return of all the deaths in the Austrian dominions during 1840. They amount to 659,840, being 9,501 more than in the preceding year. The births exceeded the deaths by 177,200. Among the causes of death we find 861 suicides, 53 cases of hydrophobia, 473 murders, 5,369 fatal accidents, and 28 executions.

The number of American vessels lost at sea during the past year amounted to 181. The steamboats lost and destroyed amounted to 17.

The three wealthiest sovereigns in Europe are Louis Phillippe of France, the elector of Hesse, and the king of Holland. Louis Phillippe is the richest, though the elector of Hesse is not far behind him. The latter derived his wealth from the sale of Hessian soldiers to England, for her wars in America, Ireland, and on the continent. With part of the proceeds of this unhallowed traffic in the blood of his subjects, the elector built near Hesse a magnificent chateau, which is called by the people in the vicinity "the castle of blood." The personal property of the king of Holland, the least wealthy of the three, amounts to nearly fifty millions of dollars.

The amount of wheat and flour shipped from Chicago for Buffalo in 1840, amounted to 20,000 bushels. The amount of wheat and flour shipped from Chicago to Buffalo in 1841, amounts to 200,000 bushels.


**LEATHER, OIL, AND FINDING STORE,**

*No.* 18 *Hudson Street.*

**J. HOCHSTRASSER,**

Will continue the above business at his old stand, and having made arrangements with manufacturers of Leather and Morocco in the cities of New-York, Philadelphia, and Albany, and having in his employ first rate workmen, he is enabled to supply his customers with all the articles in his line on the most reasonable terms, at *Wholesale* or *Retail*, the following are included in his assortment: Oak and Hemlock Harness, Bridle, Collar, Horse, Trunk, Valise, and Skirting Leather; Hog Skins, Philadelphia Russet Bridle, do. Pacing Skins, do. Lining Hides, do. Top Hides, Patent Leather, Coach Roans, Neats Foot and Liver Oil, Currier's Tools, Oak Sole Leather, Hemlock do., Wax and Grain Upper Leather, do. Calf Skins, Keen's Philadelphia do., Seal and Kip Skins, Splits and Welt Leather, Cordovan, Red, Green, White and Yellow Linings, Goat and Sheep Binding Skins, White Alum Dressed Linings, Dressed and Undressed Morocco, Colored Goat and Sheep Skins, English Shoe Thread of all numbers, India Rubber and Patent Cloth, Apron Skins, Stock Binding, &c.

N. B. An assortment of Shoe Maker's Findings will be kept on hand.

Also, *Roller Skins, Engine Hose, Band, Picker, String*, and *Patent Leather*, on hand and made to order. *Albany*, 1841.

**To Builders and Contractors.**

THE subscriber having purchased Caldwell and Cameron's Lock Establishment, is now prepared to execute orders on their improved plan, in all the variety of Door Locks now used in the best style of building. The utility of these locks will at once be apparent to any one who may examine them. The principal difficulties existing in almost every lock now in use, and so much complained of by builders and house owners, in almost entirely removed. The simple but substantial application of the spring greatly lessens friction, and consequently lessens and tendency to wear. There is no liability in any of its movements, to get out of order, and any number of them may be applied with perfect ease and security to doors of various thickness, without the usual alterations, trouble and expense, that generally attend the putting on of locks, as is best known to the experienced builder. Their utility has been thoroughly tested by experienced men, for the last two years, with entire satisfaction, and are considered by all who have used them, equal and in many respects superior to any other kind of lock now in the American market.

All orders addressed to the subscriber, at the Furnace, Fonda-street, will receive prompt attention.

ROBT CUNNINGHAM.

Schenectady, Nov. 20, 1841.

Reference may be had to any of the undersigned gentlemen who have given their approving card for publication.

We, the undersigned builders, have used Caldwell and Cameron's patent door locks, and from their simple construction, cheapness and general utility, do not hesitate to recommend them to the public, as equal to any lock of American manufacture now in use.

BOARDMAN & VAN VOAST,
GEORGE McBAIN,
HENRY MORSE, *Builders in Albany*
JOSEPH HORSFALL,
JOHN KELLY,
CORNELIUS THOMPSON,
ELIAS LYON, *Builders in Schenectady.*

I have during the past year, put on a number of Caldwell and Cameron's patent mortice and knob locks, and consider them the easiest to put on, and the best working lock I have ever used or seen. 37 JOHN RAYSIDE, Albany.

## MISCELLANY.

[From the New-York Mirror.]

### MY BROTHER.

BY E. C. SQUIER.

The sky of life had oft been clouded
With sadness for a day,
The star of hope had oft been shrouded
And dark its cheering ray,
But what reckod we, my dearest brother,
While she was near—our spirit mother!

And though our little bark was tossed,
And rough the sea that bound us,
Nor yet was faith or courage lost
While gloomed the tempest round us,
Our beacon-star was still no other
Than thy mild eye—our spirit mother!

And when the path of life was bright,
And gay the world before us,
Oh what feared we the coming night,
We knew her smile was o'er us;
Nor dreamed of harm, my dearest brother,
While she was near, our blessed mother!

When sorrow bade the tear to flow
She still was there to cheer us,
And when the heart was steeped in wo
We felt that she was near us.
For well we knew, my dearest brother,
Th' kindly heart of our sainted mother!

And often in night's silent hours,
When howled without the storm,
Her eyes were gazing into ours—
We traced her spirit form.
And we thanked God, my dearest brother,
That she was near, our blessed mother!

Ah, little thought I then of fear,
And clasped thee to my heart,
Nor little dreamed how closely near
Death hovered with his dart;
And little knew, my only brother,
How soon thou'dst join thy spirit mother!

I marked a faint and hectic glow,
That deepened every day,
The growing pallor of thy brow—
I knew thou couldst not stay.
And then I felt, my dearest brother,
Thou soon wouldst join thy spirit mother!

Thy smile was mildly sweet, and never
Thy words more kind and cheerful,
But that red spot was deep'ning over,
And smaller but more fearful!
And now thou'rt gone, my only brother,
Gone to the arms of thy spirit mother!

### FRANKLIN'S PRINTING PRESS.

Through the exertions of Mr. John B. Murray of New York, now residing in Liverpool, the identical printing press at which the philosopher Franklin, then a poor printer, worked on his first visit to London, has been placed at Mr. Murray's disposal, and will be sent to this country. A letter has been addressed to Mr. John Vaughan, the president of the Philosophical Society in Philadelphia, of which Franklin was founder, offering that society the possession of this valuable relic. Mr. Vaughan was a personal friend of Franklin, and we doubt not the arrival of the press will afford him the liveliest pleasure. Many efforts have been made to procure the press, but until now in vain.

The office of the *Newport Mercury*, preserves a press of still greater antiquity than the above. It formerly belonged to James Franklin, with whom Dr. Franklin served his apprenticeship, and is supposed to have been brought by the former to Newport, on his removal from Boston about the year 1720.

### CROWDING THE PROFESSIONS.

One of the ablest periodical writers of Great Britain, speaking of the ambition in that country of adopting professional life of all kinds, and of the rush, if we may so call it, into the professions of "law, physic, and divinity," thus points the mind's eye to the general consequences, or some of them:

"But thousands have died of broken hearts in these pursuits, thousands who would have been happy behind the plough or opulent behind the counter; thousands in the desperate struggle of thankless professions look upon the simplicity of a life of manual labor with perpetual envy, and thousands, by a worse fate still, are driven to necessities which degrade the principles of honor within them, necessitate them to humiliating modes of obtaining subsistence, and make up, by administering to the vices of society, the livelihood which was refused to their legitimate exertions."

### DEATH OF ALEXANDER.

When Alexander was at Babylon, after having spent a whole night in carousing, a second feast was proposed to him. He went accordingly, and there were twenty guests at the table. He drank the health of every person in the company, and then pledged them severally. After this, calling for Hercules' cup, which held an incredible quantity, it was filled, when he poured it all down, drinking to a Macedonian of the company, Porteas by name; and afterwards pledged him again in the same extravagant bumper. He had no sooner swallowed it, than he fell upon the floor. "Here, then, (cries Seneca, describing the fatal effects of drunkenness,) this hero, unconquered by all the toils of prodigious marches, exposed to the dangers of seiges and combat, to the most violent extremes of heat and cold, here he lies, subdued by his intemperance, and struck to the earth by the fatal cup of Hercules." In this condition he was seized with a fever, which in a few days terminated in death.

No one, says Plutarch and Arria, suspected then that Alexander was poisoned; the true poison which brought him to his end, was wine, which has killed many, many thousands besides Alexander.

### BENEDICT ARNOLD.

The following is copied, from the antique original, a letter addressed to Benedict Arnold, when a youth, by his mother, and lately first published in the *Commercial Advertiser*:

NORWICH, April 12, 1754.

dear childe. I received yours of 1 instant and was glad to hear that you was well; pray my dear Let your first concern be to make your pease with God as itt is of all concerns of ye greatest importance.

Keep a stedy watch over your thoughts, words and action—be dutifull to superiers obliging to equells and affibel to inferiors if any such there be—always chuse that your companions be your betters that by their good exampels you may Lern. From yovr affectionate mother, HANNAH ARNOLD.

P. S. I have sent your forty shillings youse itt prudently as you are acountabell to God and you father. you father and aunt joyns with me in Love and Servis to Mr. Cogswell and Ladey and yourself, your sister is from home.

### ADMIRAL WAGER,

Of the British navy, began his career upon the ocean, as an apprentice to an honest old quaker. Capt. Hull, of Newport, R. I. On the first serious trial of his mettle, he gave proof of those qualities so essential to a seaman—coolness and courage. His master's ship, commanded by his master, was approached by a piratical schooner, full of men thirsting for spoils and for blood. Capt. Hull's quakerism would not allow him to defend himself or his vessel—but young W. was no quaker, and determined that the guilt of his blood should not, if he could help it, be upon the pirates' heads. After a good deal of earnest entreaty, and a little respectful force, he got the good captain into the cabin, and accidentally fastened him in. Taking command of the ship, he made hasty but efficient preparations to run over the pirate. Hull watched his motions with intense interest, and looking out from the companion way, and perceiving the object of young Wager, could not help observing to him—"*Charles, if thee intends to run over that schooner, thee must put the helm a little more to the starboard.*" Charles observed the direction of the quaker; the ship passed directly over the schooner, which sunk instantly, and every pirate perished.

This exploit procured for Charles a commission in the British navy, and thus laid the foundation of his fame and fortune.

### AGE OF ANIMALS.

A bear rarely exceeds twenty years; a dog lives twenty years; a wolf twenty; a fox fourteen or sixteen years; lions are long lived. Pompey lived to the age of seventy. The average age of cats is fifteen years; a squirrel or hare seven or eight years; rabbits seven. Elephants have been known to live to the great age of 400 years. When Alexander the great conquered one Porus, king of India, he took a great elephant which had fought valiantly for the king and named him AJAX, dedicated him to the sun, and let him go with this inscription, "Alexander the son of Jupiter hath dedicated AJAX to the sun." This elephant was found with this inscription 300 years afterwards. Hogs have been known to live to the age of thirty years; the rhinoceros to twenty. A horse has been known to live to the age of sixty-two, but averages twenty-five to thirty. Camels sometimes live to the age of one hundred. Stags are long lived. Sheep seldom exceed the age of ten. Cows live about fifteen years. Cuvier considers it possible that whales sometimes live one thousand years. Mr. Mallerton has the skeleton of a swan that attained the age of two hundred years. Pelicans are long lived. A tortoise has been known to live to the age of one hundred and seven.

### CURIOSITY.

Some English people were visiting an elegant private garden at Palermo, Sicily, and among the little ornamental buildings they came to one, upon which was written, "Non aprite," that is, "Don't open." This prohibition only served to excite their curiosity, and they very uncivilly proceeded to disobey the hospitable owner's injunction. On opening the door, a forcible jet of water was squirted full in their faces—a very just though not very severe retribution.

### A BRILLIANT BEDSTEAD.

The emperor of Russia recently sent to the shah of Persia a bedstead made entirely of chrystal, worked in imitation of large diamonds, encrusted in a solid frame. On each side there are spouts made to eject scented water, which, by its murmurings, invites to sleep. It is crowned by a large chandelier, which spreads light in such a manner over itself and the rest of the frame as to give the whole the splendid appearance of millions of diamonds reflecting their brilliancy at once. We should think old Morpheus would find it difficult to make the shah sleep on a thing so excessively light.

### A GOOD ONE.

We saw a young mechanic who had just married an amiable young girl, pass home the other day with the *head of a spinning-wheel* in his hand. Depend upon it that young man has got an excellent wife, who will increase rather than diminish his little capital.

"What's the matter this morning, Tom?" "Caught a cold, that's all." "Yes, I saw you after one last night, with your coat off; I thought you'd catch it!"

### RATES OF INTEREST AMONG THE HINDOOS.

A lender of money may take, in addition to his capital, *one and a quarter per cent.* a month, if he have security. If he have no security, he may take *two per cent.* a month. He may take *in proportion to the risk*, and in the direct order of the classes: two per cent. a month from a priest, three per cent. a month from a soldier, four from a merchant, five from a mechanic, but never more than five per cent. as interest by the month.

### SENSE.

Fine sense and exalted sense are not half so valuable as common sense. There are forty men of wit for one of common sense; and he that will carry nothing about him but gold, will be every day at a loss for readier change.


PROSPECTUS
OF THE
## NEW YORK STATE MECHANIC

A weekly paper, devoted to the interests of Mechanics and Manufacturers.

It is proposed to publish at Albany, a weekly paper under the above title, the object of which will be to advocate the rights and privileges of that great portion of community to which it appeals for support, and to disseminate every species of information and useful knowledge adapted to its wants. The topics intended to be discussed, will embrace the useful sciences, whose applicability to the various arts and trades will be illustrated; all new scientific discoveries and mechanical inventions, which will be accompanied by an engraving when important; discussions of public measures and institutions which have a bearing upon mechanic labor; accounts of curious arts and experiments; biographies of eminent mechanics and artists; histories of manufactures and descriptions of manufacturing establishments in different sections of the country; statistics of the resources, products, &c., of manufacturing towns and districts; together with a synopsis of the most important news, and other useful and entertaining matter from every accessible source. It will be seen that the field presented is one capable of affording a distinguished publication, and in order to occupy it fully, efficient writers will be enlisted.

Other professions and callings have their publications, which are useful in their spheres, and it is believed that the mechanics of the State of New-York will readily perceive how great a desideratum remains to be supplied at their hands, and cheerfully extend their patronage to an undertaking, in which they have so deep an interest; a work which is intended to minister to the wants of their intellectual and political condition—eschewing the partisan politics of the day, but freely discussing all questions and measures of practical tendency.

The *New York State Mechanic* will be printed on a royal sized quarto, in the best style of execution, forming at the end of the year a volume of more than 400 pages of useful matter, worthy of preservation for future reference; and will be offered at $1 per annum in advance, a price which will place it within the reach of the humblest artizan.

J. MUNSELL, & Co.

Albany, Oct. 1845. No. 60 State-Street.